

REMARKS

The Final Office Action mailed February 3, 2006, has been received and reviewed. Claims 1 through 23 are currently pending in the application. Claims 1 through 23 stand rejected. Applicant has amended claims 1, 14 and 23 herein and respectfully requests reconsideration of the application in view of the amendments, the new Reissue Declaration and the Arguments set forth herein.

Amendments to the Claims

Claims 1, 14 and 23 have been amended herein to rephrase apparatus limitations as affirmative method limitations or acts, improve antecedent basis and/or correct textual errors. Applicants submit that such claims have not been amended in terms of the subject matter set forth by each and, further, submit that citation to specific passages of the specification is not required for support of the amendments.

Moreover, the amendments to claims 1, 14 and 23 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application.

Information Disclosure Statements and Duty of Disclosure

The Examiner has commented on Applicant's submittal of Information Disclosure Statements stating the following:

The Examiner acknowledges receipt of the lengthy information disclosure statements filed 01/17/2006 and 08/01/2003 together totaling 113 reference documents. There is no requirement that applicants explain the materiality of English language references, however the cloaking of a clearly relevant reference in a long list of references may not comply with applicants' duty to disclose, see Penn Yan Boats, Inc. v. Sea Lark Boats, Inc., 359 F. Supp. 948, aff'd 479 F.2d 1338. There is no duty for the Examiner to consider these references to a greater extent than those ordinarily looked at during a regular search by the Examiner. Accordingly, the Examiner has considered these references in the same manner as references encountered during a normal search of Office search files. (Final Action, page 2).

Applicant notes that the present reissue application is part of a family of related applications and issued patents, including numerous foreign applications. As the Examiner is well aware, Applicant is required under 37 CFR 1.56 to disclose information material to patentability. As set forth in MPEP sections 2001.06(a) and (b), such information includes prior art cited in related foreign applications and information relating to or from copending United States patent applications. Applicant's undersigned attorney affirmatively asserts that no attempts have been made to cloak a clearly relevant reference within the Information Disclosure Statements that have been submitted in association with the present application. Rather, all submissions of prior art references in the present reissue application have been made in an effort to comply with Applicant's duty of disclosure.

Rejection of Claims based on a Defective Reissue Declaration

The Examiner has rejected claims 1 through 23 as being based on a defective reissue declaration. The Examiner indicates that Applicant has failed to identify a *specific* error which is correctable by a reissue application. Applicant submits herewith a newly executed Declaration which specifically sets forth various errors sought to be corrected by the present reissue application. As stated in the Declaration, such errors include the correction of the pressure ratio set forth in the paragraph set forth at column 24, lines 28-39 (i.e., the ratio has been changed from " P_O/P_1 " to " $- P_1/P_O -$ ") and various amendments to the claims regarding the correction of antecedent basis and compliance with 35 U.S.C. § 112 and 37 CFR 1.75(c), including corrections to affirmatively recite method acts in numerous claims.

For example, with respect to claims 1 and 5, the Declaration states the following:

Claim 1 included language specifically directed to apparatus limitations, namely:

the reactor chamber having a predetermined length sufficient to effect heating of the gaseous stream to the selected reaction temperature at which a desired end product is available as a thermodynamically unstable reaction product at a location adjacent [the] an outlet end of the reactor chamber;

Such limitations may not be seen as satisfying the requirements of 35 U.S.C. § 112 since

claim 1 might be interpreted as improperly intermixing system/apparatus limitations in a claim belonging to the statutory class of a method or process. Claim 1 has been amended in the present reissue application to now recite:

defining the reactor chamber [having] to exhibit a predetermined length sufficient to effect heating of the gaseous stream to the selected reaction temperature at which a desired end product is available as a thermodynamically unstable reaction product at a location adjacent [the] an outlet end of the reactor chamber;

The inclusion of affirmative method acts in claim 1 provides for proper interpretation of the claim and unambiguous compliance with 35 U.S.C. § 112. This amendment also provides proper antecedent basis in claim 1 for the recited “outlet end” of the reactor chamber.

Claim 5 included the limitations that “the desired end product is titanium metal and the reactant is titanium tetrachloride.” The mere recitation of an identified “end product” and a “reactant” might be interpreted as failing to further limit the claim(s) from which claim 5 depends as is required by 37 CFR 1.75(c). Furthermore, such limitations may not be seen as satisfying the requirements of 35 U.S.C. § 112 as claim 5 might be interpreted as reciting system/apparatus limitations although the statutory class of the claim is a method/process.

Claim 5 has been amended in the current reissue application to read as follows:

5. The method of claim 2, wherein collecting the desired end product [is] includes collecting titanium metal and, wherein introducing a metal halide [the] reactant [is] includes introducing titanium tetrachloride.

The inclusion of affirmative method acts in claim 5 provides for proper interpretation of the claim and unambiguous compliance with 35 U.S.C. § 112 and 37 CFR 1.75(c).

Applicant submits that the such errors are appropriate for correction by a reissue application. Still considering claims 1 and 5 as a example, it is noted that potential ambiguities in claims, particularly when method and apparatus limitations are intermixed in a given claim, may render a claim invalid. (See *IPXL Holdings LLC v. Amazon.com Inc.*, 72 USPQ2d 1469 (E.D. Va, 2004). Specifically, the Court stated the following:

Under 35 U.S.C. §112(2), a claim must “particularly point[] out and distinctly

claim[] the subject matter which the applicant regards as his invention.” Furthermore, 35 U.S.C. §101 defines the various classes of subject matter eligible for patenting. As interpreted by the courts, apparatuses (which includes “systems”) and processes (or “methods”) are both classes of patent eligible subject matter under 35 U.S.C. §101 and may both be claimed in the same patent. This occurs, for example, in patents that claim both an apparatus and a method of using the apparatus. Such patents contain separate sets of claims ...directed towards the two different classes of invention. However, “combining two separate statutory classes of invention *in a single claim* is not sufficiently precise to provide competitors with an accurate determination of the ‘metes and bounds’ of protection involved.” *Ex parte Lyell*, No. 89-0461, 1990 WL 354583, at *5 (Bd. Pat. App. & Inter. Apr. 9, 1990) (emphasis added). Consequently, an invention “which purports to be both an apparatus and a process *in a single claim*, is ambiguous and properly rejected” as indefinite under 35 U.S.C. §112(2). *Id.* at *6 (emphasis added).

Additionally, with respect to claim 5, the recitation “wherein the desired end product is titanium metal” and “wherein the reactant is titanium tetrachloride” arguably does not further limit claim 1 (or intervening claim 2) from which claim 5 depends as required by 37 CFR. 1.75(c). Rather, at best, such a recitation might be considered as adding to the statement of purpose set forth in the *preamble* of claim 1 which recites “[a] method for thermally converting one or more metal halide reactants in a thermodynamically stable high temperature gaseous stream to a *desired end product*.” As noted in MPEP 2111.02, “[i]f the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention’s limitations, then the preamble is not considered a limitation and is of no significance to claim construction.” (MPEP §2111.02, citing *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999)). Thus, the limitation of claim 5, prior to the amendments set forth in the present reissue application, may be read as merely refining the statement of purpose or intended use that is set forth in the preamble of claim 1.

Moreover, the recitation in question may be considered as failing to further limit either claim 1 or claim 2 since the statutory class of invention is a method or process and since the

language of claim 5 may be interpreted as (apparatus/system) limitations that fail to further limit the recited *method acts* of claims 1 or 2.

Additionally various claims have been identified in the newly submitted Declaration as correcting antecedent basis issues. One such claim includes claim 12 which recites “the *injection* of uranium hexafluoride” although no form of the term “inject” has been used in the base or intervening claims of claim 12.

As noted by the Court of Customs and Patent Appeals (CCPA) in *In re Altenpohl*, 500 F.2d 1151 at 1156 (CCPA, 1974), “[l]ack of antecedent basis in a claim could render it invalid under 35 U.S.C. § 112, second paragraph, and correction of such a defect by reissue should not have to depend on difference in scope of the claim.” (Emphasis added). Moreover, “[i]nasmuch as 35 U.S.C. § 251 is a remedial provision, which should be liberally construed, a patentee should be allowed to correct an error or ambiguity in a claim without having to rely on implication or litigation.” (*Id.* at 1156-1157).

As such, Applicant submits that the errors being corrected as set forth in the Preliminary Amendment filed August 1, 2003, and specifically identified in the presently submitted Declaration provide a proper basis for the present reissue application.

Applicant, therefore, respectfully requests reconsideration and allowance of claims 1 through 23.

CONCLUSION

Claims 1 through 23 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant's undersigned attorney.

Respectfully submitted,



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Date: 7 APR 2006